

Amendments to the Claims:

1. – 28. (CANCELLED).

29. (CURRENTLY AMENDED) A system for wireless communications using speech recognition comprising:

a device configured for processing speech signals using speech recognition circuitry, the device including at least some back end speech recognition processing circuitry;

a headset with a microphone for capturing audio signals to be processed, the headset configured for performing front end speech recognition processing by initially forming sampled spectral transforms representations of the captured audio signals and processing the sampled spectral transforms representations of the captured audio signals using speech detection circuitry to determine that the captured audio signals include user speech as opposed to extraneous noise;

the headset including switching circuitry that is further operable to facilitate selectively wirelessly transmitting, to the device, the sampled spectral transforms representations of the captured audio signals when user speech rather than noise is detected from the spectral transforms and to not allow transmitting to the device when user speech is not detected;

the back end speech recognition processing circuitry of the device using the spectral transforms transmitted by the headset to complete the speech recognition of the system.

30. (CANCELLED).

31. (CURRENTLY AMENDED) The system of claim 29 wherein the headset comprises audio filter circuitry configured for forming the spectral transforms ~~a digitized representation of the audio signals and for analyzing the digitized representation to detect if the audio signals represent user speech.~~

32. (CURRENTLY AMENDED) The system of claim ~~[[31]]~~ 29 wherein the headset comprises circuitry for creating signal frames associated with the spectral transforms ~~components of the captured audio signals digitized representation~~, the headset configured for transmitting the signal frames.

33. (CURRENTLY AMENDED) The system of claim 32 wherein the headset includes Mel scale filters for generating the signal frames ~~reflective of a set of filter values.~~

34. – 38. (CANCELLED).

39. (ORIGINAL) The system of claim 29 wherein the device is a portable terminal.

40. (ORIGINAL) The system of claim 29 wherein the device is a computer.

41. (PREVIOUSLY PRESENTED) The system of claim 29 further comprising a second microphone, the first and second microphones configured to generate signals with the first microphone detecting a greater proportion of speech sounds of a user than the second microphone;

the headset configured to process signals generated by the first and second microphones to detect speech of the user as opposed to extraneous noise.

42. (CANCELLED).

43. (CURRENTLY AMENDED) The system of claim ~~[[42]]~~ 29 wherein the back end speech recognition circuitry comprises codebook lookup circuitry.

44. (CURRENTLY AMENDED) The system of claim [[42]] 29 wherein the back end speech recognition circuitry further comprises pattern matching circuitry.

45. (CURRENTLY AMENDED) A method for wireless communication between a headset and device using speech recognition, the method comprising:

capturing audio signals with a headset having a microphone;

processing the captured audio signals and performing front end speech recognition by forming sampled spectral transforms ~~representations~~ of the captured audio signals at the headset and using speech detection circuitry to analyze the sampled spectral transforms ~~representations~~ to determine if that the captured audio signals include user speech as opposed to extraneous noise;

using switching circuitry for selectively wirelessly transmitting sampled spectral transforms ~~representations~~ of the captured audio signals to the device when user speech rather than noise is detected from the spectral transforms and for not transmitting to the device when user speech is not detected;

at the device, using back end speech recognition processing circuitry of the device to process the spectral transforms transmitted by the headset to complete the speech recognition.

46. – 47. (CANCELLED).

48. (CURRENTLY AMENDED) The method of claim 45 further comprising forming signal frames associated with the spectral transforms of the captured audio signals ~~as the sampled representations~~ and transmitting the signal frames.

49. (ORIGINAL) The method of claim 48 further comprising using Mel scale filters at the headset for generating the signal frames.

50. (CANCELLED).

51. (ORIGINAL) The method of claim 45 wherein the device is a portable terminal.

52. (ORIGINAL) The method of claim 45 wherein the device is a computer.

53. (CANCELLED).

54. (PREVIOUSLY PRESENTED) The method of claim 53 further comprising capturing audio signals with a second microphone positioned in the headset, the first microphone detecting a greater proportion of speech sounds of a user than the second microphone; processing the signals generated by the first and second microphones to determine if the user is speaking as opposed to extraneous noise being captured.

55. (ORIGINAL) The method of claim 45 further comprising performing a spectral transformation of the sampled representations for speech recognition analysis.

56. (ORIGINAL) The method of claim 55 further comprising using the spectral transformation to operate codebook lookup circuitry and to output codebook values.

57. (ORIGINAL) The method of claim 56 further comprising performing pattern matching processing with the codebook values.

58. (CURRENTLY AMENDED) A headset for communication with a remote device for use in speech recognition, the headset comprising:

a microphone system configured to capture audio signals including user speech; and

front end speech recognition circuitry responsive to the output of said microphone system to form [a] sampled spectral transforms of the captured audio signals in order to reduce the amount of microphone system output data that is communicated to said remote device;

the switching circuitry coupled with the front end speech recognition circuitry and configured to facilitate selectively transmitting the sampled spectral transforms of the audio signals to the device when user speech is detected as opposed to extraneous noise and ~~to~~ not transmitting to the device when user speech is not detected;

the sampled spectral transforms being in a form usable by back end speech recognition processing circuitry in the remote device to complete the speech recognition .

59. – 64. (CANCELLED).

65. (ORIGINAL) The headset of claim 58 wherein said headset communicates with said remote device wirelessly.

66. – 68. (CANCELLED).

69. (PREVIOUSLY PRESENTED) The headset of claim 58 wherein said headset includes at least two microphones positioned at different distances from the user's mouth and circuitry responsive to the outputs of said microphones and configured to process said outputs to discriminate user speech from extraneous noise.

70. – 84. (CANCELLED).